

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,848	08/21/2003	Gert-Ove WAHLSTROM	07589.0127.PCUS00	1847
28694 7	7590 01/18/2005		EXAMINER	
TRACY W. DRUCE, ESQ. NOVAK DRUCE & QUIGG LLP			SAN MARTIN, EDGARDO	
1615 L STREET NW			ART UNIT	PAPER NUMBER
SUITE 850			2837	
WASHINGTO	N, DC 20036		DATE MAILED: 01/18/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

Λ
F 12
1/
- V\)
1 ~

		Application No.	Applicant(s)					
Office Action Summary		10/604,848	WAHLSTROM	ET AL.				
		Examiner	Art Unit					
		Edgardo San Martin	2837					
The MAILING DATE Period for Reply	of this communication app	ears on the cover shee	t with the correspondence	address				
THE MAILING DATE OF - Extensions of time may be available after SIX (6) MONTHS from the may be available after SIX (6)	le under the provisions of 37 CFR 1.13 ailing date of this communication. ove is less than thirty (30) days, a reply above, the maximum statutory period watended period for reply will, by statute, ter than three months after the mailing	6(a). In no event, however, ma within the statutory minimum of ill apply and will expire SIX (6) to cause the application to becom	y a reply be timely filed thirty (30) days will be considered to the mailing date of the ABANDONED (35 U.S.C. § 133).	is communication.				
Status								
1) Responsive to comr	munication(s) filed on <u>01 No</u>	ovember 2004.						
2a) This action is FINAL	•	action is non-final.						
	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is							
closed in accordanc	e with the practice under <i>E</i>	x parte Quayle, 1935 (C.D. 11, 453 O.G. 213.					
Disposition of Claims								
4)⊠ Claim(s) <u>1-17</u> is/are	pending in the application.							
4a) Of the above cla	4a) Of the above claim(s) is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.								
6)⊠ Claim(s) <u>1-17</u> is/are	rejected.							
7) Claim(s) is/ar								
8) Claim(s) are	subject to restriction and/or	election requirement.						
Application Papers								
9) The specification is o	bjected to by the Examiner	•						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.								
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).								
11)☐ The oath or declarati	on is objected to by the Exa	aminer. Note the attacl	hed Office Action or form	PTO-152.				
Priority under 35 U.S.C. § 11	9							
12)⊠ Acknowledgment is r a)⊠ All b)□ Some *		priority under 35 U.S.C	C. § 119(a)-(d) or (f).					
1. Certified copies of the priority documents have been received.								
2. Certified copies of the priority documents have been received in Application No								
	certified copies of the priori		en received in this Nation	nal Stage				
	m the International Bureau							
* See the attached deta	iled Office action for a list of	of the certified copies r	not received.					
Attachment(s)								
1) Notice of References Cited (PT		•	w Summary (PTO-413)					
2) Notice of Draftsperson's Patent 3) Information Disclosure Stateme		·	No(s)/Mail Date of Informal Patent Application (f	PTO-152)				
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) 6) Other:								

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 1. Claims 1 4, 6, 7 and 9 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Okawa et al. (JP 02173313).

With respect to claims 1 and 9 - 11, Okawa et al. teach an apparatus for damping resonance in a conduit (Fig.3) for transporting exhaust gases from an internal combustion engine, which conduit is provided with at least one perforation (Fig.3, Item 4) located at a distance from the outlet end (Fig.3, Item 2) of the conduit and at a point (Fig.3, Item 5) in the conduit with a comparatively lower static pressure than downstream therefrom, the perforation forming an acoustic connection between the interior of the conduit and the surrounding atmosphere (Fig.3). The Examiner considers that the subject matter described by claims 9 – 11 is inherently taught by the structure described in claim 1, it is just the description of how the structure of claim 1 works, based on the Venturi effect.

With respect to claims 2 and 3, Okawa et al. teach wherein the lower static pressure in the vicinity of the perforation is brought about by means of a reduction in the cross section of the conduit (Fig.3, Item 5); and wherein the reduction in the cross section of the conduit is designed as a venturi (Fig.3).

With respect to claim 4, Okawa et al. teach wherein the reduction in the cross section of the conduit designed as a venturi is covered on the outside with a sound absorbing material (Fig.3, Item 3).

With respect to claims 6 and 7, Okawa et al. teach wherein the lower static pressure in the vicinity of the perforation is brought about by means of a change in direction of the gas flow in the conduit, and wherein the change in direction of the gas flow is brought about by means of a curve of the conduit (Fig.3), that is how the Venturi effect is created.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okawa et al. (JP 02173313) in view of Ciapetta et al. (US 3,471,265).

Okawa et al. teach the limitations discussed in a previous rejection, but fail to disclose wherein the sound-absorbing material is covered by a perforated plate.

Nevertheless, Ciapetta et al. teach a pipe portion designed as a venturi (Fig.3) being covered on the outside with a catalytic material (Fig.3, Item 58) covered by a perforated plate (Fig.3, Item 60).

Application/Control Number: 10/604,848

Art Unit: 2837

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to employ the Ciapetta et al. perforated cover plate to cover the Okawa et al. sound absorbing material because the perforated cover plate would provide an exit for the exhaust gases that escape to the ambient through the perforations, in a low pressure stage of the engine, eliminating the creation of a high pressure environment that could further create a backpressure that could decrease the performance of the engine.

3. Claims 8 and 12 - 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okawa et al. (JP 02173313).

With respect to claim 8, Okawa et al. teach the limitations discussed in the previous rejections, but fail to disclose wherein the perforations are covered by means of a sound-permeable fabric on the inside or outside of the conduit.

The Examiner takes Official Notice that it is well known in the art of acoustics to employ a sound permeable fabric in acoustics applications that it is desired to let the sound flow freely while providing a protection against undesired presence of particles or materials, as it is used in speaker grills applications and sound absorbing materials with water resistance treatments.

It would have been an obvious matter of design choice to employ a sound permeable fabric covering because it would serve as a filter against undesired particles while permitting the free flow of the exhaust gas.

With respect to claims 12 - 17, Okawa et al. teach the limitations as described in the claims as previously discussed with respect to claims 2 - 4, 6 and 7.

4. Applicant's arguments filed on November 1, 2004, with respect to the rejections

of claims have been fully considered and are persuasive. Therefore, the rejection has

been withdrawn. However, upon further consideration, a new ground(s) of rejection is

made in view of Okawa et al. (JP 02173313) and Ciapetta et al. (US 3,471,265) as

discussed above.

Conclusion

5. The attached hereto PTO Form 892 lists prior art made of record and not relied

upon, the Examiner considered it pertinent to applicant's disclosure.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Edgardo San Martin whose telephone number is (571)

272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Martin can be reached on (571) 272-2107. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Edgardo San Martín

Patent Examiner

Art Unit 2837

Class 181

January 10, 2005